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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,795	10/24/2003	Robert Shih	15436.247.1.1	9310
22913	7590	02/04/2008		
WORKMAN NYDEGGER 60 EAST SOUTH TEMPLE 1000 EAGLE GATE TOWER SALT LAKE CITY, UT 84111			EXAMINER AKANBI, ISIAKA O	
			ART UNIT 2886	PAPER NUMBER
			MAIL DATE 02/04/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/693,795	<b>Applicant(s)</b> SHIH ET AL.	
	<b>Examiner</b> ISIAKA O. AKANBI	<b>Art Unit</b> 2886	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 7-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 12, 2007 has been entered. Claims 1-6 are cancelled. Claims 20-24 have been added.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 7-9, 13-18 and 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Radner (4,772,123).

Regarding to claims 7 and 20, Radner discloses a method/packaged optical device assembled to aligning a cap having a lens to a header holding a photonic device (fig. 1), the method comprising:

a step for viewing, through said lens (12/16), a displacement (16) of a first optical axis of said lens relative to a second optical axis of said photonic device (10); and

a step for mounting said cap (photonic device)(10) to said header (14) to hold said cap in alignment with said photonic device.

Radner fails to specifically specify that the cap lens is moved relative to header holding photonic device (i.e. a step for moving said cap relative to said header to position said first optical axis of said lens proximate said second optical axis of said photonic device).

However, since Radner discloses a header (14) holding photonic device (10) and is moving relative to the cap lens (fig. 1)(col. 2, lines 21-51), it would have been at least obvious to one having ordinary skill in the art at the time of invention was made to substitute the step of moving the header relative to the cap lens with a step of moving the cap lens relative to the header, since this would not alter/change the purpose/ goal of the invention of Radner and would help to achieve the predictable results of relative movement for the purpose of providing optical components alignment with accuracy.

As to claims 8 and 13, Radner fails to specify the specific type of sealing/joining/welding process use.

Radner shows in fig. 1, a cap that is attached to the base plate of either a header (14) or lenses 12 and 26 holder. Further, since Radner does not limit the type of sealing/joining/welding process used to attach the cap to the header, it would have been at least obvious to one having

ordinary skill in the art at the time of the invention was made to hermetically sealing or join or weld metallicity a header to a cap. Since these are common and known ways in the art to attach two elements and thus achieve the predictable results of permanently welding the header and the cap.

As to claim 9, Radner discloses a step for viewing photonic device by a video display system (fig. 1: 30).

Regarding to claim 14, Radner discloses an apparatus to align a cap having a lens with a first optical axis to a header holding a photonic device with a second optical axis comprising of the following:

a capture assembly (fig. 1: 16/18) adapted to hold said header (14) having said photonic device (10), said capture assembly being movable relative to said cap (fig. 1: 12)(col. 2, lines 21-51);

a control (fig. 1: 18)/an arm configured to support said cap (photonic device or component (10) holder or Lenses 12 and 26 holder), said arm being adapted to support said cap without obstructing a view of at least a portion of said lens (12/26) and

a visual display system (30) adapted to depict a position of said cap relative to said lens (12/26) as said capture assembly moves relative to said cap to align said first optical axis (laser axis) and said second optical axis (fig. 1).

Radner fails to specifically specify that the visual display system is adapted to depict a position of said cap relative to said photonic device as said capture assembly moves relative to said cap to align said first optical axis (laser axis) and said second optical axis (lens axis)(fig. 1).

However, since Radner discloses a header (14) holding photonic device (10) and is moving relative to the cap lens (fig. 1)(col. 2, lines 21-51), it would have been at least obvious to one having ordinary skill in the art at the time of invention was made to substitute the step of

moving the header relative to the cap lens with a step of moving the cap lens relative to the header, since this would not altered/change the purpose/ goal of the invention Radner and would help to achieve the predictable results of relative movement for the purpose of providing optical components alignment with accuracy.

As to claim 15, Radner show a controller or a arm that is adapted to move a cap in at least one of an x-direction, a y-direction, and a z-direction with respect to a header (fig. 1).

As to claim 16, Radner discloses at least one welding system, said at least one welding system in electrical communication with said controller (18) or arm and said capture assembly (fig. 1).

As to claim 17, Radner discloses at least one camera (28) and at least one video display (30)(fig. 1).

As to claim 18, the reference of Radner teaches of an optical assembly comprising camera (CCD)(28).

However, the reference of Radner is silent with regard to said camera further comprising a zoom lens.

The examiner wishes to take Official Notice of the fact that the use of a camera with zoom lens would have been well known as evidenced by Mazumder et al. (5,446,549). It would have been obvious to one having ordinary skill in the art at the time of invention to provide a camera comprising a zoom lens for the purpose of zoom in or out camera to obtain a better image of the alignment.

As to claims 21 and 22, Radner discloses a photonic device that is a laser and a photo diode (see abstract).

As to claim 23, Radner discloses a ball lens (12) (fig. 1).

As to claim 24, Radner discloses an optical detector (28) (fig. 1).

Claims 10-12 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Radner (4,772,123) or in view of Staver et al. (5,621,831).

As to claims 10 and 19, Radner discloses a process/a step for overlaying a calibration pattern on said video display (fig. 1: 30, 30' and 30'')(col. 3, lines 1-67).

However, even arguendo, Radner doesn't explicitly disclose the claimed limitations, it is common and known in the art, as evidenced by Staver (fig. 3) (col. 5, line 4-30).

Therefore it would have been at least obvious to one having ordinary skill in the art at the time of invention was made to substitute one method for the other to achieve the predictable result of aiding a person to align accurately laser to fiber alignment.

As to claim 11, Radner discloses a step for moving said cap relative to said header until a center of said lens is within a preselected calibration distance of said photonic device (figs. 1)(col. 2, lines 21-67).

As to claim 12, Radner discloses also discloses a step for positioning said header for movement in at least two of an x- direction, a y-direction, and a z-direction, a step for positioning said cap for movement in at least two of an x- direction, a y-direction, and a z-direction, and a step for moving at least one of said header and said cap in at least one of an x-direction, a y-direction, and a z-direction (figs. 1)(col. 2, lines 21-67).

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Radner in view of the examiner Official Notice.

As to claim 18, Radner teaches an optical assembly comprising a camera (CCD) (28).

However, Radner is silent regarding the camera further comprising a zoom lens.

The examiner wishes to take Official Notice of the fact that the use of a camera with zoom lens is common and known in the art as evidenced by Mazumder et al., USPAT 5,446,549. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide a camera comprising zoom lens for the purpose of zoom in or out to obtain a better image of the alignment.

### ***Response to Arguments***

Applicant's arguments with respect to claims 7-19 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isiaka Akanbi whose telephone number is (571) 272-8658. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tarifur R. Chowdhury can be reached on (571) 272-2287. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Isiaka Akanbi  
January 30, 2008

/TARIFUR R CHOWDHURY/

Supervisory Patent Examiner, Art Unit 2886